compare the alcohols obtained from them with the secondary alcohol from mannite and from hexylene, and with the primary hexyl-alcohol which is found in fusel-oil.

XX. "Formation of Cetyl-alcohol by a singular reaction." By C. Schorlemmer. Communicated by Prof. Stokes, Sec. R.S. Received June 14, 1870.

On heating a mixture of sebacic acid, $C_{10}H_{18}O_4$, and caustic baryta, besides the hydrocarbon C_8H_{18}, which I have described in a former communication*, other products are formed, amongst which there is a solid body, which, by several crystallizations from alcohol, was obtained in small white crystals.

On analyzing it, Mr. Dearden obtained results which led to the formula $C_{16}H_{34}O$, which is that of *cetyl-alcohol*:—

	Calculated.		Found.	
			I.	II.
C_{16}	192	79·34	79·3	78·9
H_{34}	34	14·05	13·8	13·9
O	16	6·61	——	——
	242	100·00		

This body has not only the composition but also the characteristic properties of cetyl-alcohol; it melts at 49°, and solidifies again at the same temperature.

The formation of this compound is certainly very singular, and perhaps the more so as cetyl-alcohol is so easily oxidized to sebacic acid by the action of nitric acid. I intend to obtain larger quantities of it by the above reaction and to investigate it.

XXI. "Researches in Animal Electricity." By C. B. Radcliffe, M.D. Communicated by Charles Brooke, M.A. Received May 19, 1870.

(Abstract.)

Part I.

The subjects of the present inquiry are three in number:—1. The electrical phenomena belonging to living nerve and muscle during rest; 2. The electrical phenomena which mark the passing of nerve and muscle from the state of rest into that of action; and 3. The workings of voltaic electricity, and of electricity generally, upon nerve and muscle.

1. *The electrical phenomena belonging to living nerve and muscle during the state of rest.*

Argument.—Living nerve and muscle have an electricity of their own, which fails by degrees as life dies out, and is wanting altogether after

* Proc. Roy. Soc. vol. xvi. p. 376.